ONKYO SERVICE MANUAL

Ref. No. 4041
(MDC) 112007
(MPP) 032008

CD TUNER AUDIO SYSTEM
MODEL CBX-300

RC-713S

MDC	120V AC, 60Hz
MPP	230V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

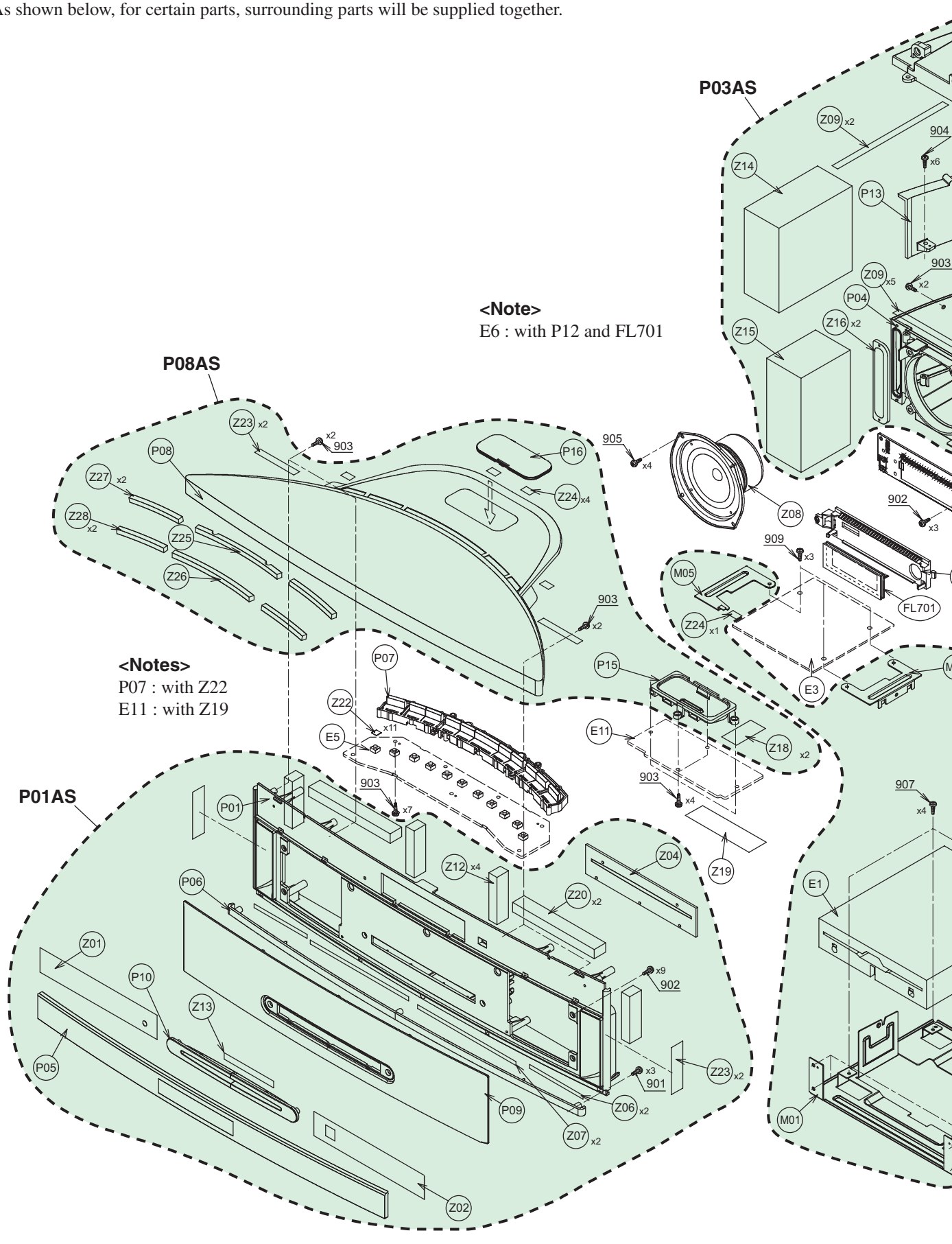
COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

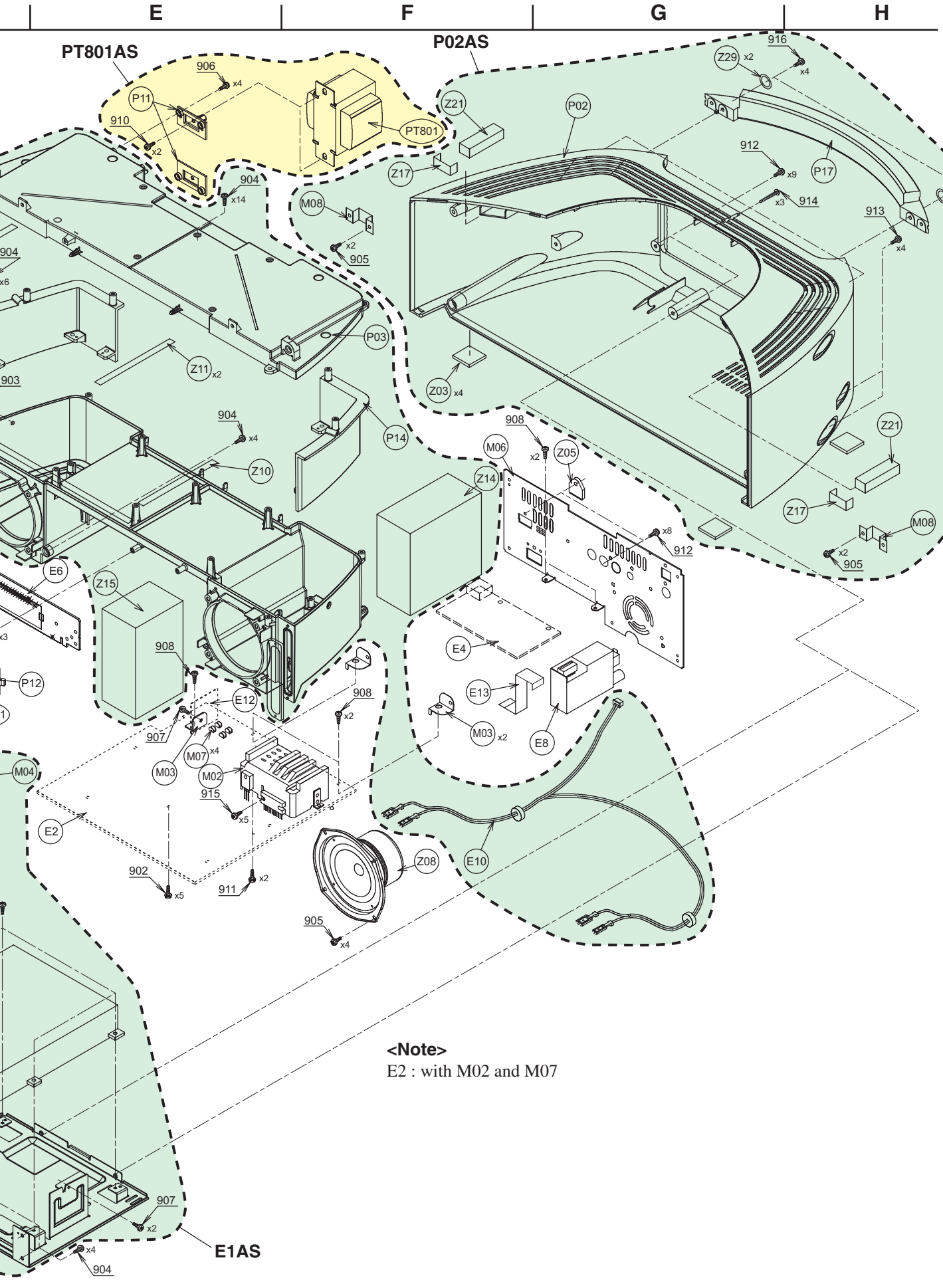
MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO®
IMAGINATIVE SIGHT & SOUND

EXPLODED VIEW

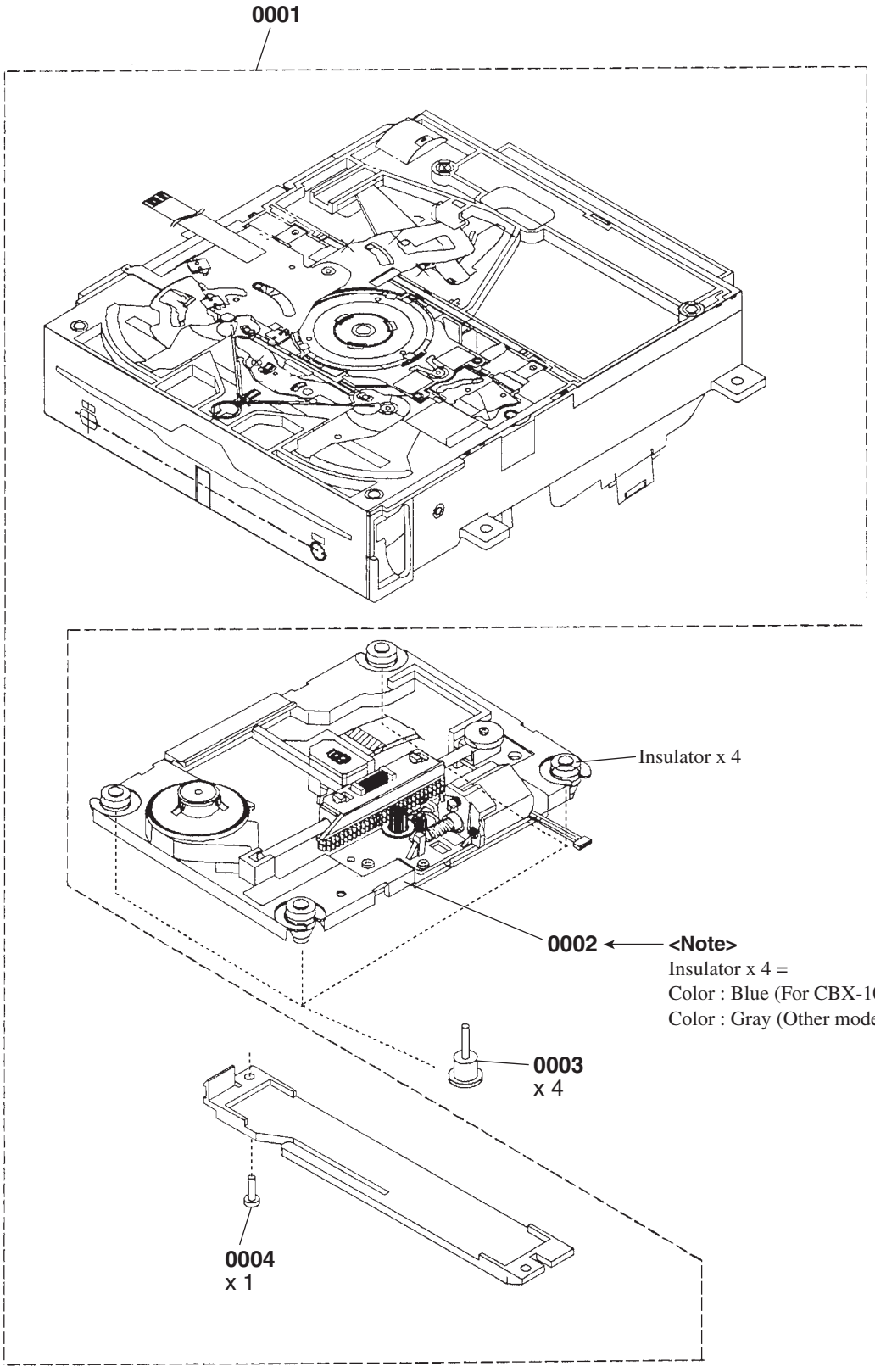
<Note>
As shown below, for certain parts, surrounding parts will be supplied together.





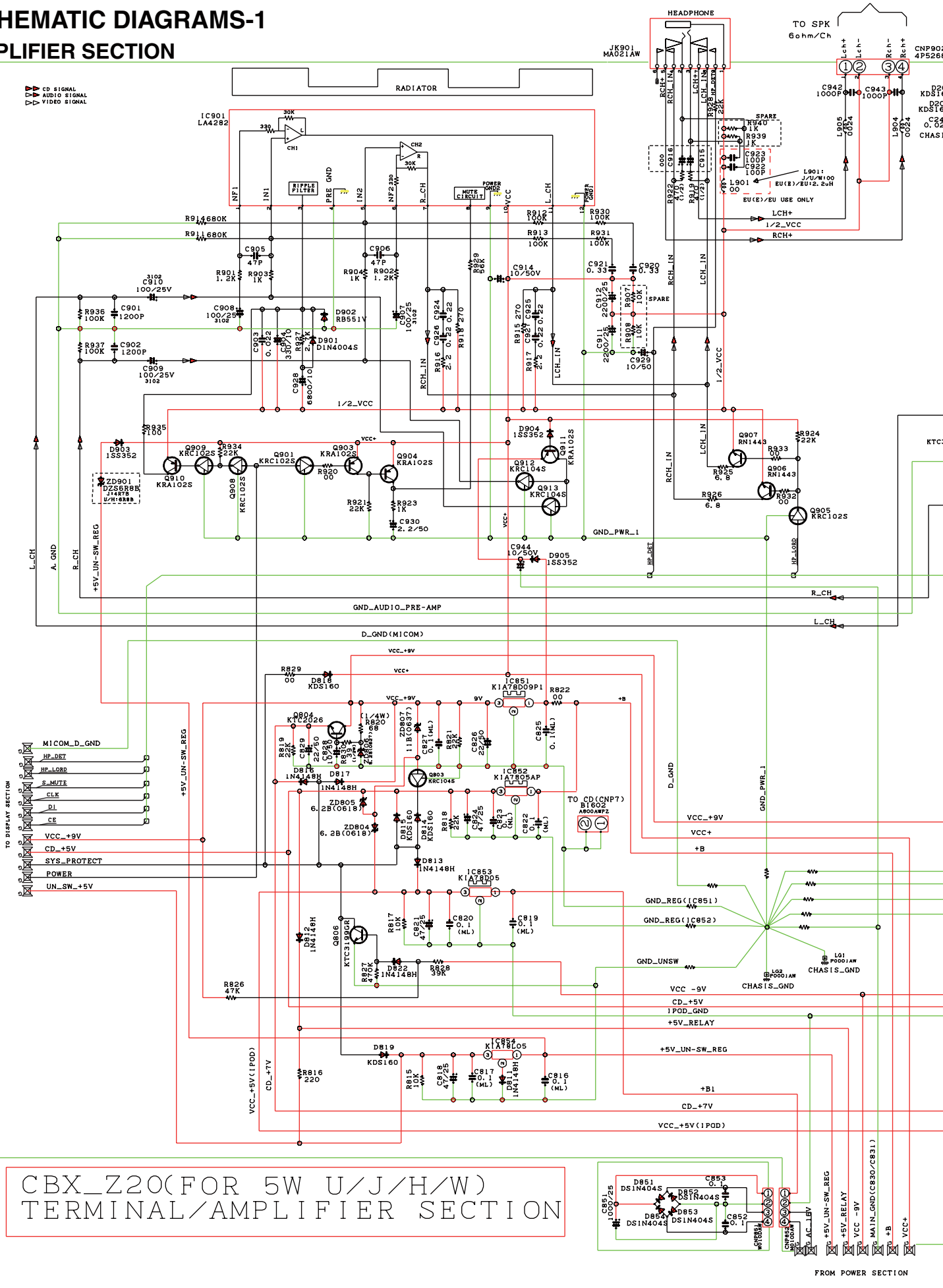
<Note>
E2 : with M02 and M07

EXPLODED VIEW OF MECHANISM

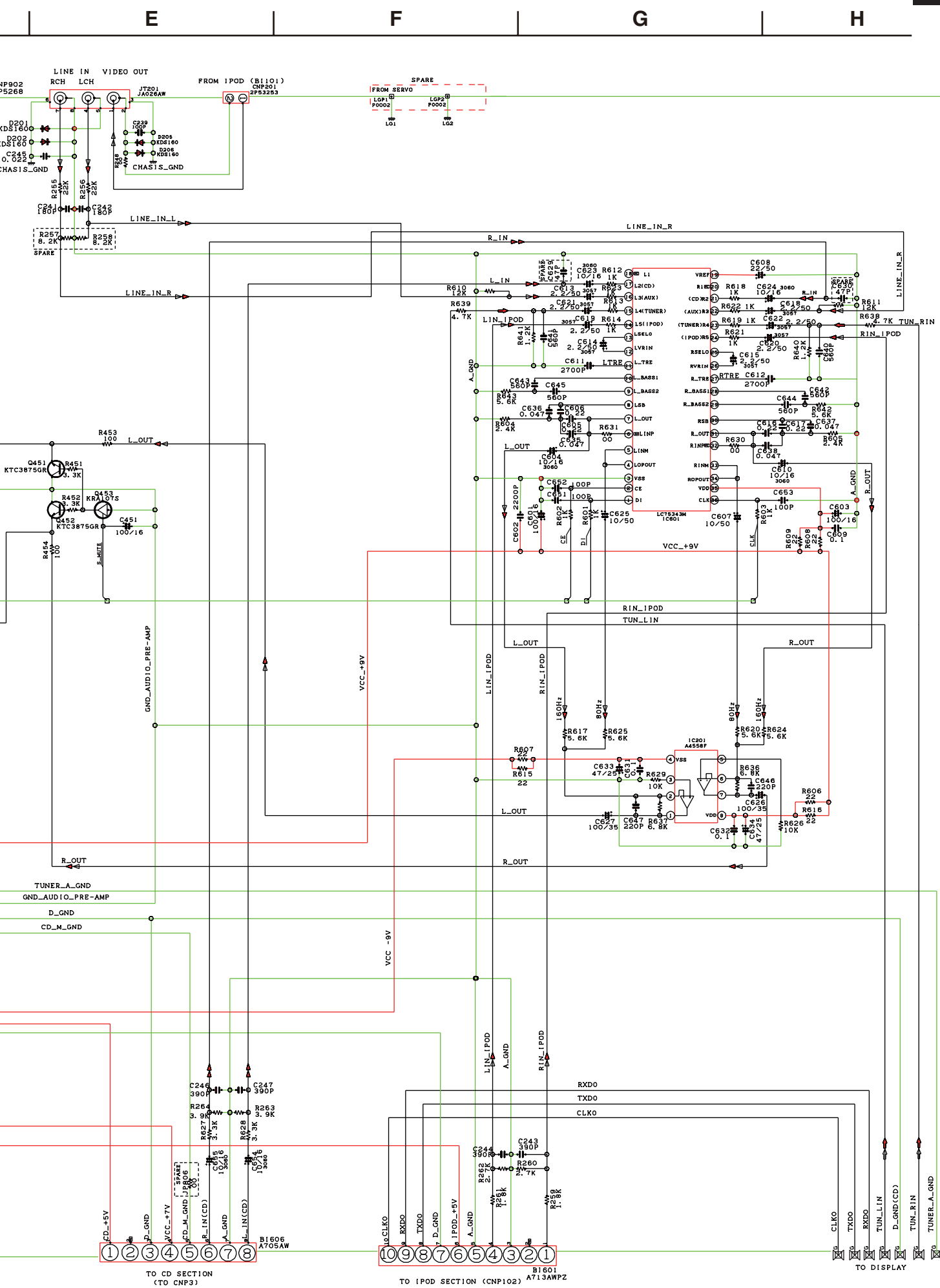


SCHEMATIC DIAGRAMS-1

AMPLIFIER SECTION

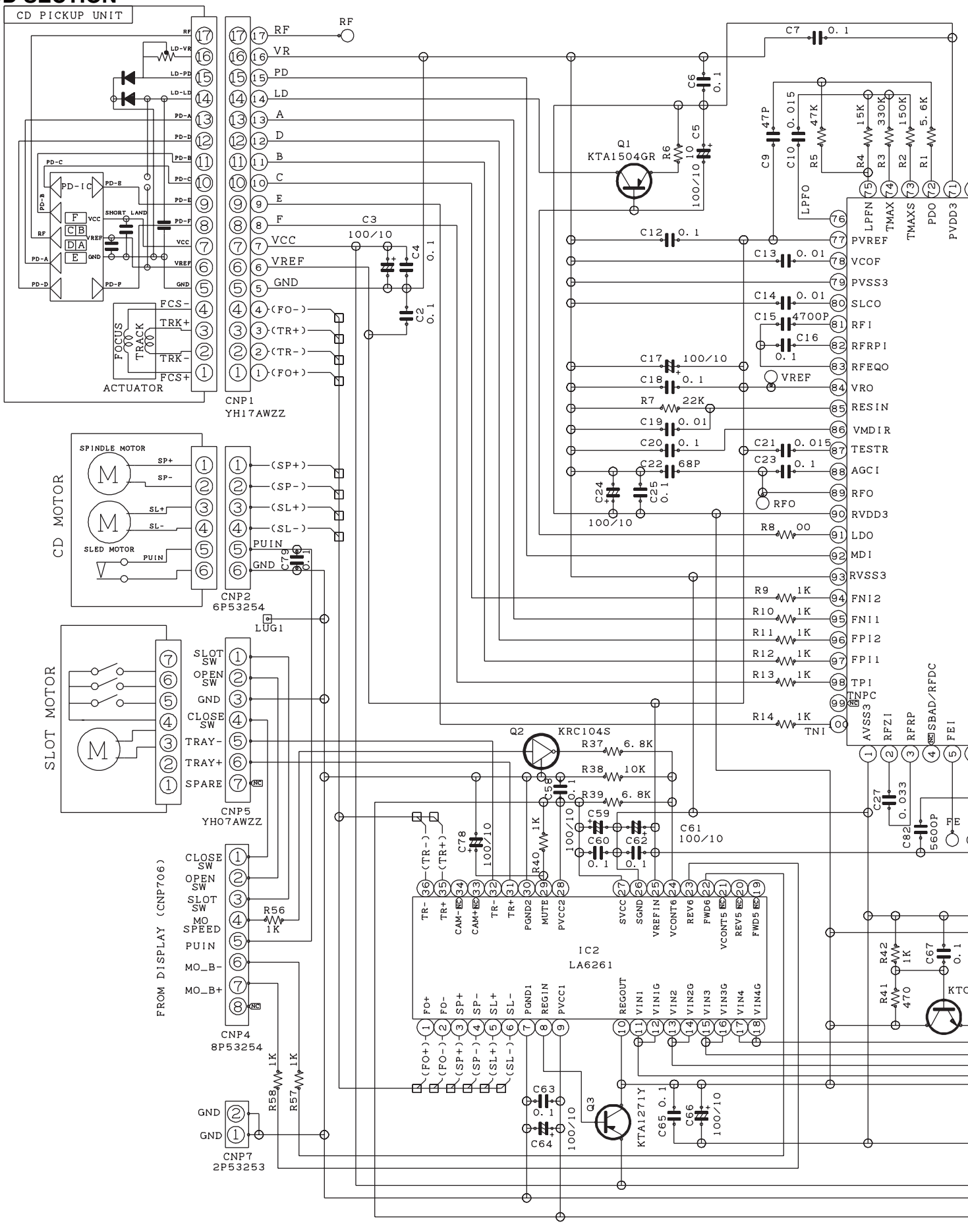


CBX_Z20(FOR 5W U/J/H/W)
TERMINAL/AMPLIFIER SECTION

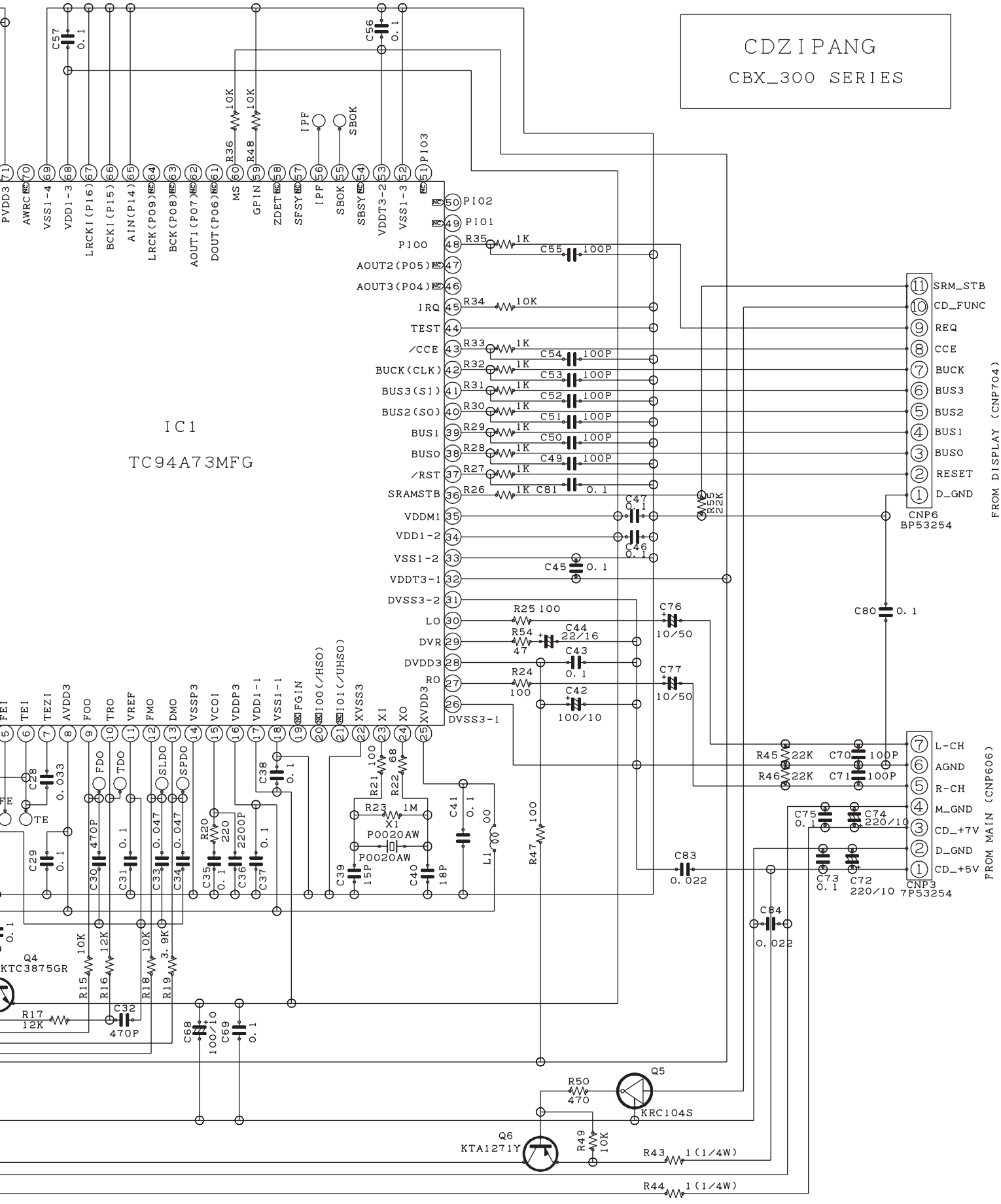

E
F
G
H
LINE IN VIDEO OUT
RCH LCH
FROM IPOD (BI101)
SPARE
FROM SERVO
CHASIS_GND
LINE_IN_L
LINE_IN_R
R_IN
L_IN
LIN_IPOD
RIN_IPOD
TUN_LIN
L_OUT
R_OUT
VCC_+9V
VCC_-9V
GND_AUDIO_PRE-AMP
TUNER_A_GND
D_GND
CD_M_GND
A_GND
RXDO
TXDO
CLKO
TO CD SECTION
(TO CNP3)
TO IPOD SECTION (CNP102)
TO DISPLAY

SCHEMATIC DIAGRAMS-2

CD SECTION

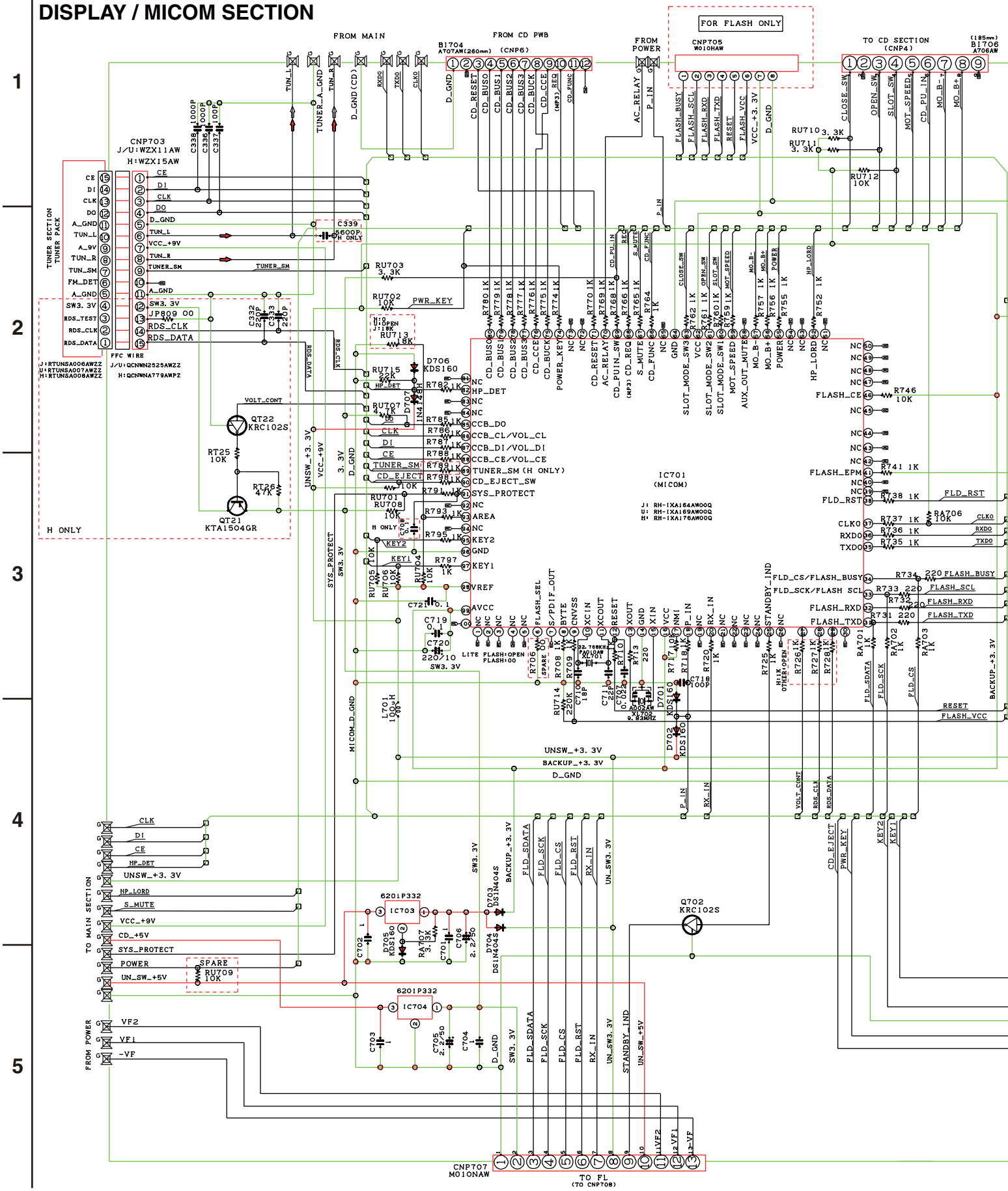


E F G H

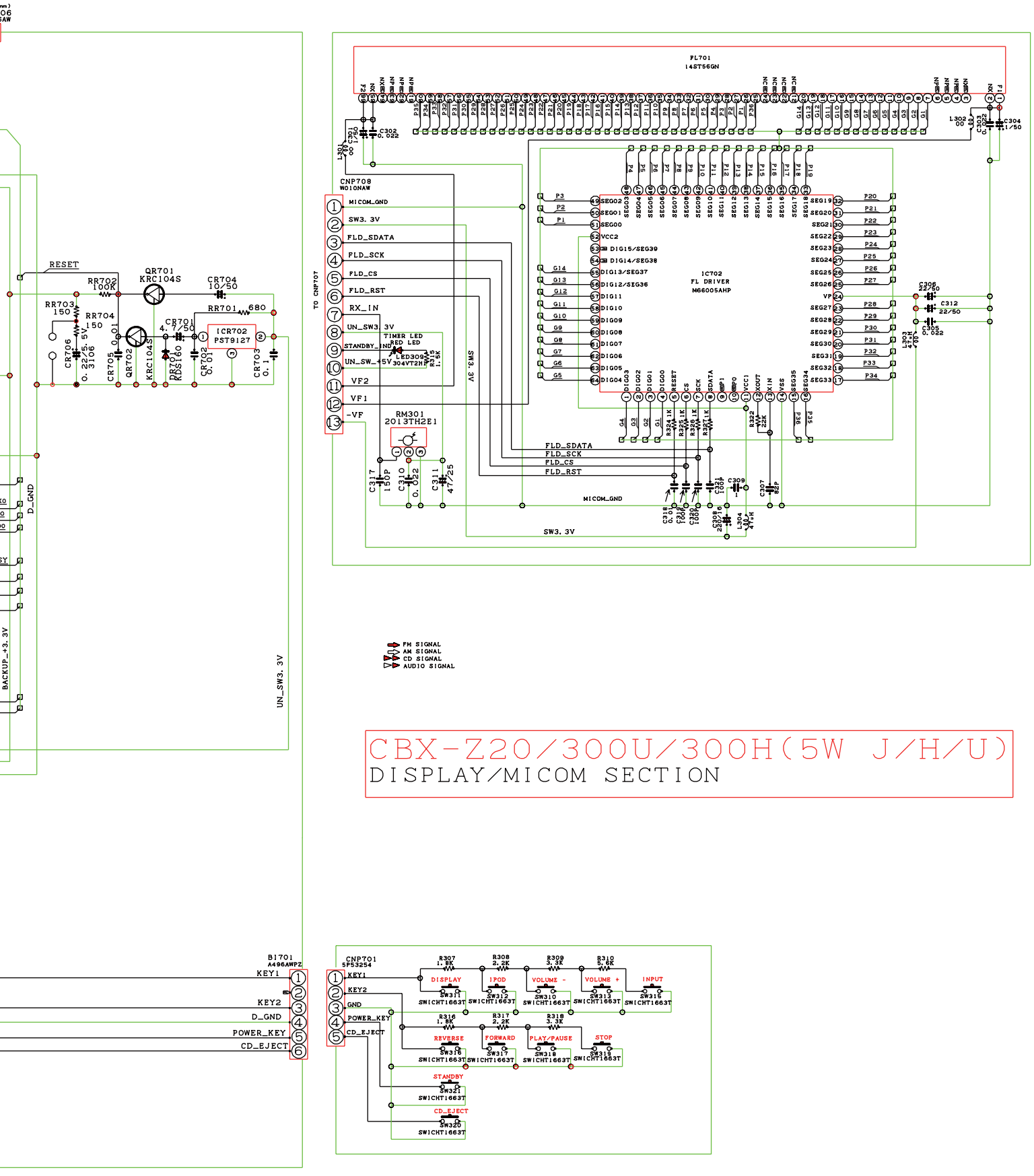

CDZIPANG
CBX_300 SERIES
IC1
TC94A73MFG
FROM DISPLAY (CNP704)
FROM MAIN (CNP606)
CNP6
BP53254
CNP3
7P53254
SRM_STB
CD_FUNC
REQ
CCE
BUCK
BUS3
BUS2
BUS1
BUS0
RESET
D_GND
L-CH
AGND
R-CH
M_GND
CD_+7V
D_GND
CD_+5V
Q4
KTC3875GR
Q5
KRC104S
Q6
KTA1271Y

SCHEMATIC DIAGRAMS-3

DISPLAY / MICOM SECTION



E F G H

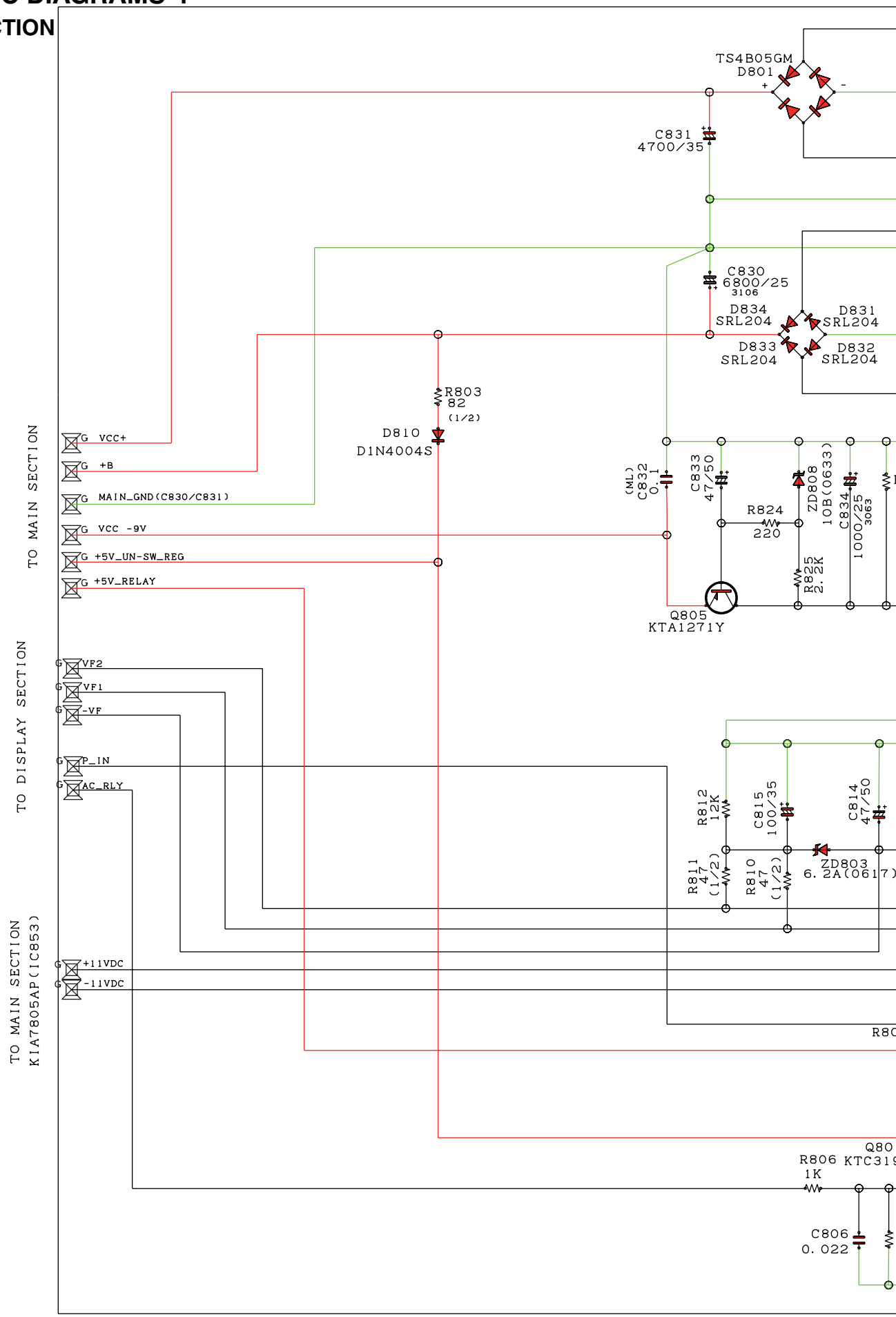


CBX-Z20/300U/300H(5W J/H/U)

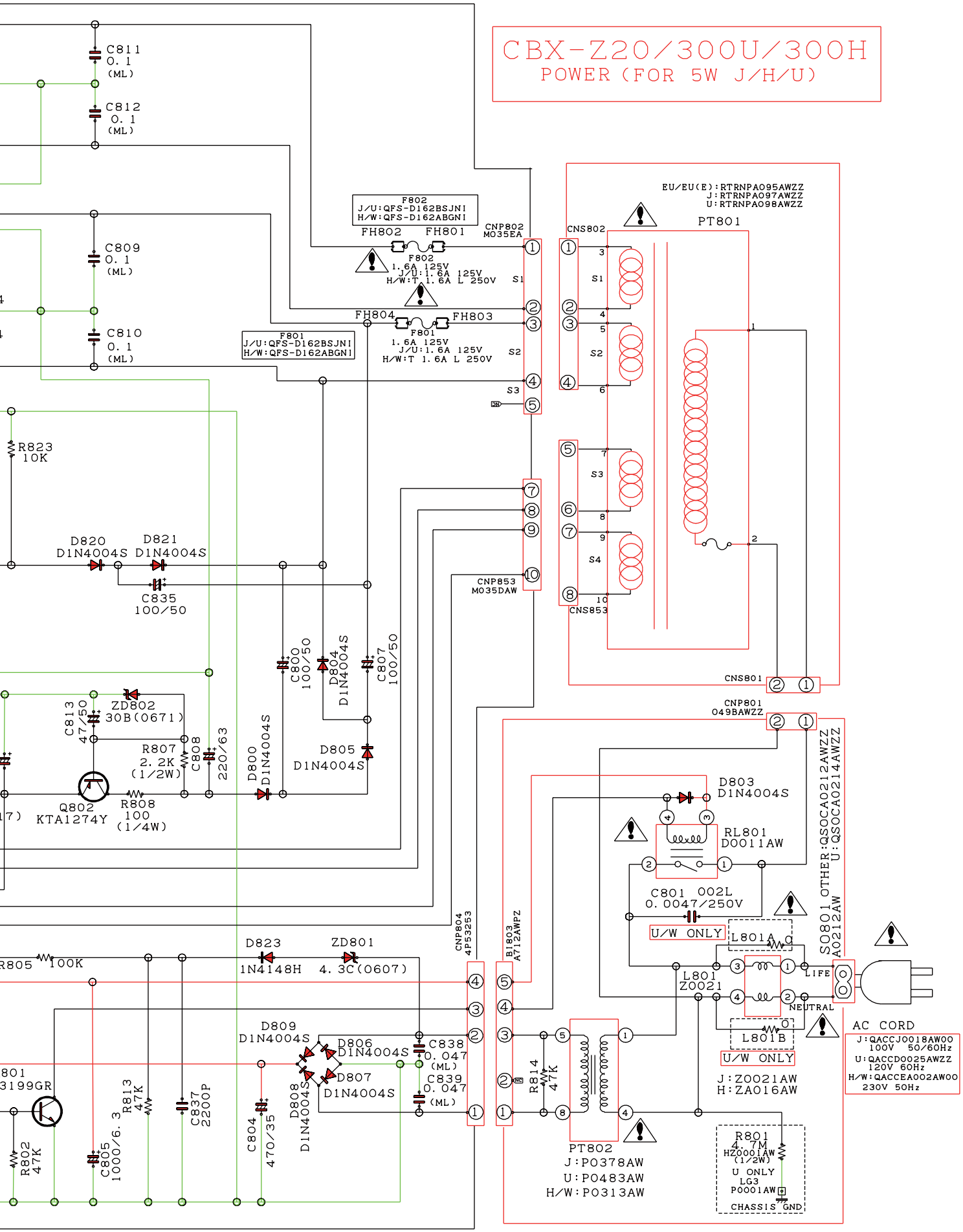
DISPLAY/MICOM SECTION

SCHEMATIC DIAGRAMS-4

POWER SECTION

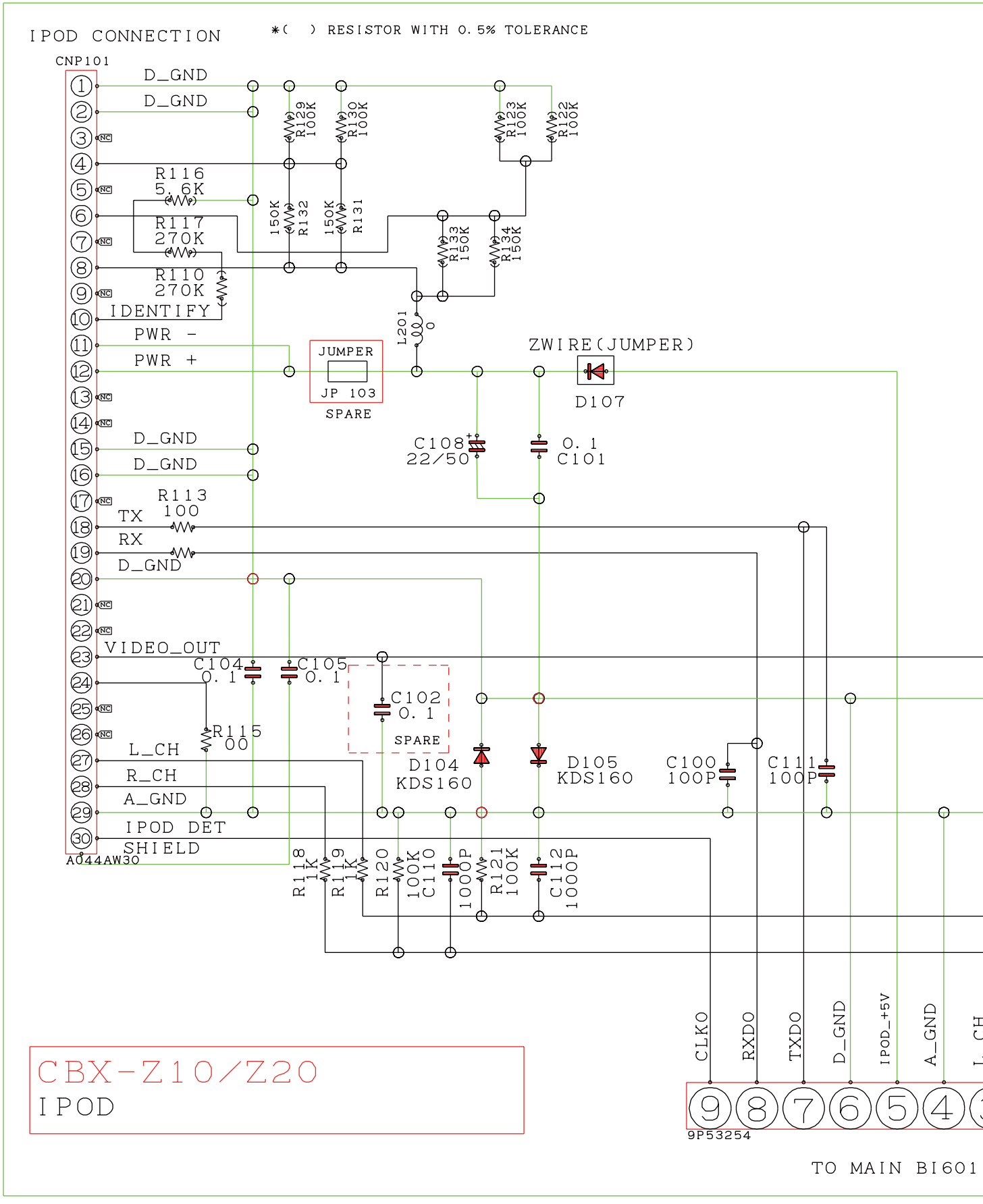


E F G H

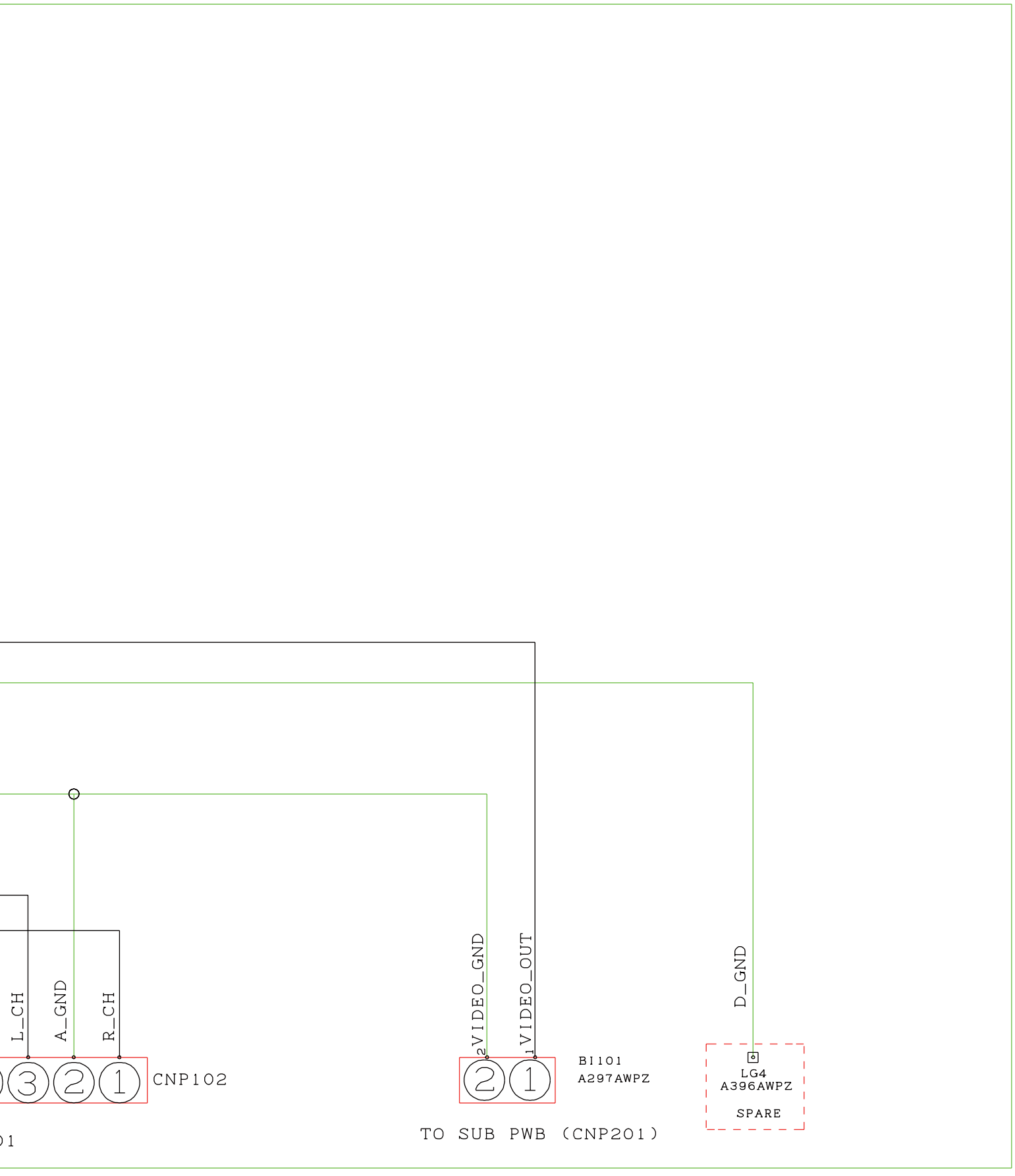

CBX-Z20/300U/300H
POWER (FOR 5W J/H/U)
C811 0.1 (ML)
C812 0.1 (ML)
C809 0.1 (ML)
C810 0.1 (ML)
F802 J/U:QFS-D162BSJNI H/W:QFS-D162ABGNI
FH802 FH801
F802 1.6A 125V J/U:1.6A 125V H/W:T 1.6A L 250V
FH804 FH803
F801 J/U:QFS-D162BSJNI H/W:QFS-D162ABGNI
F801 1.6A 125V J/U:1.6A 125V H/W:T 1.6A L 250V
CNP802 M035EA
EU/EU(E):RTRNPA095AWZZ J:RTRNPA097AWZZ U:RTRNPA098AWZZ
PT801
CNS802
S1
S2
S3
S4
CNP853 M035DAW
CNS853
CNS801
CNP801 049BAWZZ
R823 10K
D820 D1N4004S
D821 D1N4004S
C835 100/50
C800 100/50
D804 D1N4004S
C807 100/50
C813 47/50
ZD802 30B(0671)
R807 2.2K (1/2W)
C808 220/63
D800 D1N4004S
D805 D1N4004S
Q802 KTA1274Y
R808 100 (1/4W)
D803 D1N4004S
RL801 D0011AW
C801 002L 0.0047/250V
U/W ONLY
L801A 0
L801 Z0021
LIFE
NEUTRAL
L801B 0
U/W ONLY
J:Z0021AW H:ZA016AW
SO801 OTHER:QSOCA0212AWZZ U:QSOCA0214AWZZ A0212AW
AC CORD
J:QACCJ0018AW00 100V 50/60Hz
U:QACCD0025AWZZ 120V 60Hz
H/W:QACCEA002AW00 230V 50Hz
CNP804 4P53253
B1803 A712AWPZ
D823 1N4148H
ZD801 4.3C(0607)
R805 100K
D809 D1N4004S
D806 D1N4004S
D807 D1N4004S
D808 D1N4004S
C838 0.047 (ML)
C839 0.047 (ML)
R814 47K
PT802
J:P0378AW
U:P0483AW
H/W:P0313AW
R801 4.7M HZ0001AW (1/2W) U ONLY LG3 P0001AW
CHASSIS GND
R802 47K
C805 1000/6.3
R813 47K
C837 2200P
C804 470/35
3199GR

SCHEMATIC DIAGRAMS-5

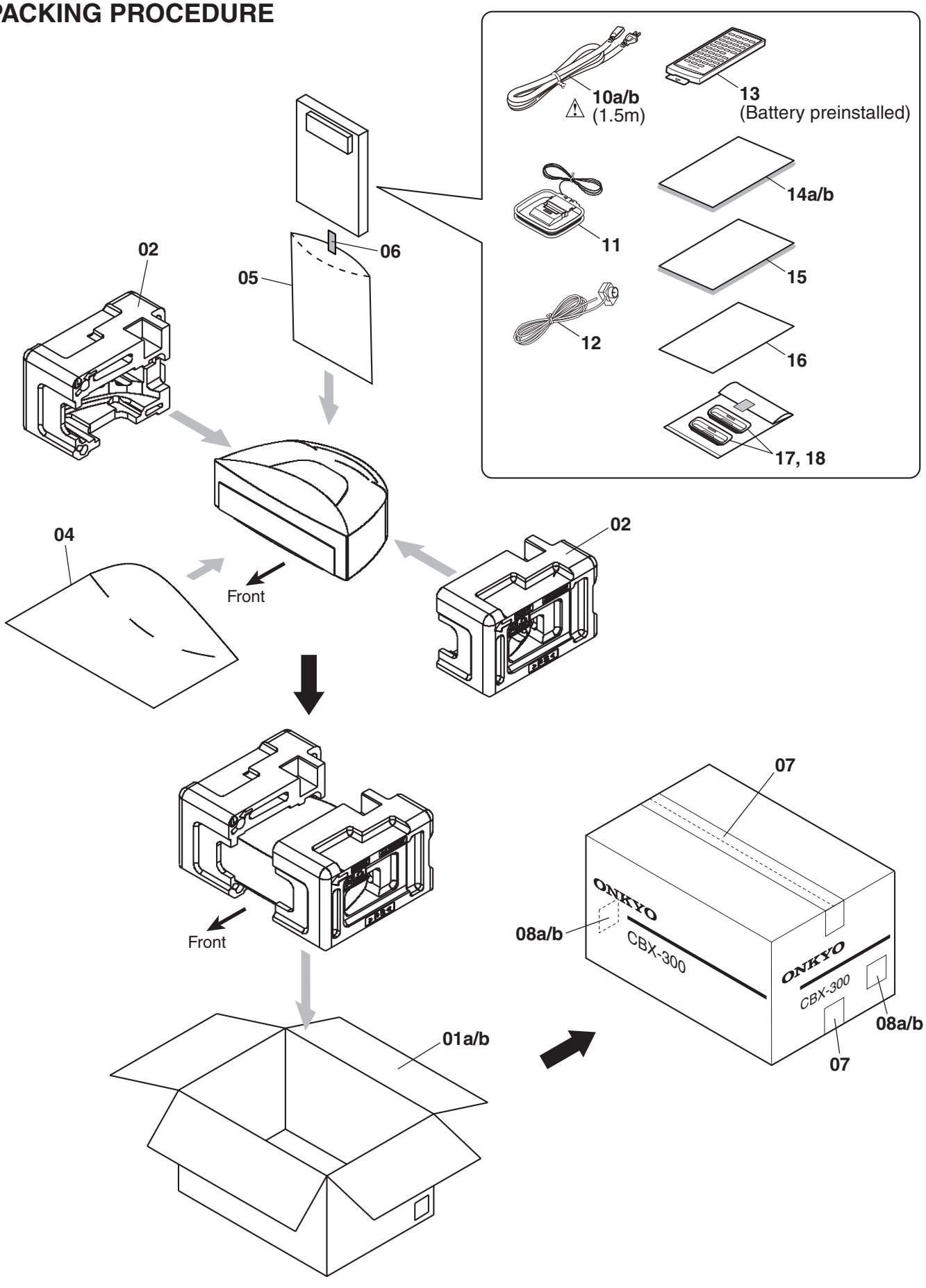
IPOD DOCK SECTION



E F G H


L_CH
A_GND
R_CH
3
2
1
CNP102
01
2VIDEO_GND
1VIDEO_OUT
2
1
BI101
A297AWPZ
TO SUB PWB (CNP201)
D_GND
LG4
A396AWPZ
SPARE

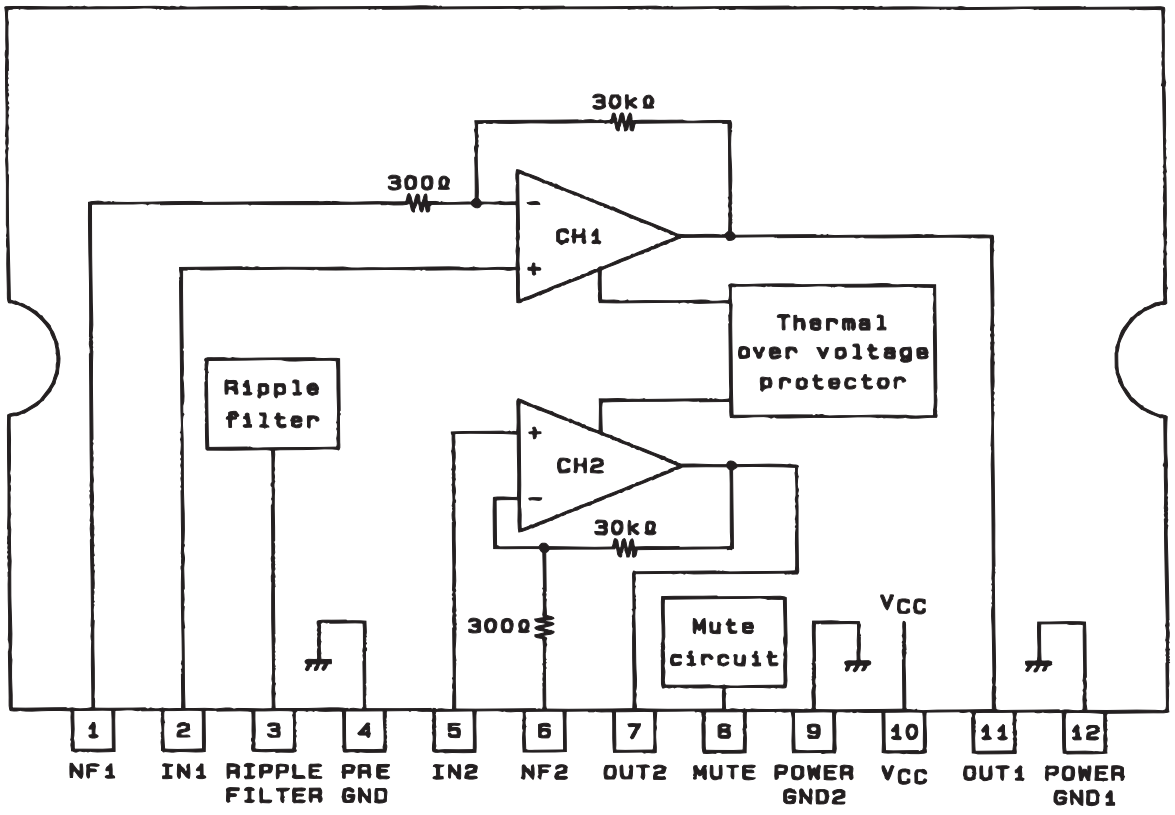
PACKING PROCEDURE



IC BLOCK DIAGRAM AND TERMINAL DESCRIPTION

IC901 : LA4282 (Power Amplifier)

BLOCK DIAGRAM



SERVICE PROCEDURE

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

SERVICE WARNING : DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICKUP BLOCK.

Laser Diode Properties

Material: GaAS/GaAlAs
Wavelength: 760-800nm
Laser output: max. 0.5mW*
Emission Duration: continuous
*This output is the value measured at a distance about 1.8mm from the objective lens surface on the Optical Pickup Block.

Laser warning label

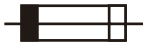
Class 1 label

LUOKAN 1
LASERLAITE

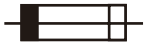
KLASS 1
LASER APPARAT

Printed on rear panel

Replacing the fuse



This symbol located near the fuse indicates that the fuse used is show operating type, For continued protection against fire hazard, replace with same type fuse , For fuse rating, refer to the marking adjacent to the symbol.



Ce symbole indique que le fusible utilise est e lent. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce demier est indique la qu le present symbol est apposre.

REF. NO.	PART NAME	DESCRIPTION	PART NO. (SN)	REMARKS
F801	FUSE	1.6A-T/UL-ST2 (1.6A/125V)	252252GR	<MDC> ⚠
F801	FUSE	1.6A-SE-TL250V (1.6A/250V)	252273GR	<MPP> ⚠
F802	FUSE	1.6A-T/UL-ST2 (1.6A/125V)	252252GR	<MDC> ⚠
F802	FUSE	1.6A-SE-TL250V (1.6A/250V)	252273GR	<MPP> ⚠

Initialize the unit

(1) Disconnect the AC power cord from the wall outlet.
(2) Press and hold down the STANDBY/ON button, connect the AC power cord into the wall outlet.

FL display

RESET ---> Standby mode

(3) Disconnect the AC power cord from the wall outlet.

CBX-300

<Note>

Parts marked by "**NSP**" are generally unavailable because they are not in our Master Spare Parts List.

NOTE : THE COMPONENTS IDENTIFIED BY THE MARK ! ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

<Notes>

<MDC> : Canadian model

<MPP> : European model

EXPLODED VIEW PARTS LIST

	REF. NO.			PART NAME / DESCRIPTION	Q'TY	PART NO. (SN)	REMARKS
EXPLODED	**TRANSFORMER**						
EXPLODED	PT	801		Power (Main)	01	RTRNPA098AWZZ	! <MDC>
EXPLODED	PT	801	AS	Power (Main) (PT801 + P11x2)	01	RTRNPA098AWZZ	! <MDC>
EXPLODED	PT	801		Power (Main)	01	RTRNPA095AWZZ	! <MPP>
EXPLODED	PT	801	AS	Power (Main) (PT801 + P11x2)	01	RTRNPA095AWZZ	! <MPP>
EXPLODED	**FL TUBE**						
EXPLODED	FL	701		FL Display	01	VVK14ST56GN-1	
EXPLODED	**TUNER UNIT**						
EXPLODED	E	8		Tuner Pack	01	RTUNSA007AWZZ	<MDC>
EXPLODED	E	8		Tuner Pack	01	RTUNSA008AWZZ	<MPP>
EXPLODED	**CABINET PARTS**						
EXPLODED	E	10		Speaker Wire	01	QCNWNA710AWPZ	NSP
EXPLODED	E	13		Flat Cable,11Pin	01	QCNWN2525AWZZ	
EXPLODED	M	01		Mach Chassis	01	LCHSMA072AWFW	
EXPLODED	M	02		Heat Sink	01	PRDARA123AWFW	NSP
EXPLODED	M	03		Bracket, Support Angle	03	LANGT0042AWFW	NSP
EXPLODED	M	04		Bracket, Servo PWB R	01	LANGKA102AWFW	NSP
EXPLODED	M	05		Bracket, Servo PWB L	01	LANGKA128AWFW	NSP
EXPLODED	M	06		Back Plate	01	GITARA475AWSA	N <MDC>
EXPLODED	M	06		Back Plate	01	GITARA473AWSA	N <MPP>

EXPLODED	M	07		Holder,Fuse	04	QFSHD0001AWZZ	
EXPLODED	M	08		Bracket, Handle Support	02	LANGKA135AWFW	N
EXPLODED	P	01		Front Panel	01	HPNLCA083AWSA	
EXPLODED	P	01	AS	Front Panel Ass'y <MDC>	01	CBX300BMDC-FPAS	<MDC>
EXPLODED	P	01	AS	Front Panel Ass'y <MPP>	01	CBX300BMPP-FPAS	<MPP>
EXPLODED	P	02		Rear Cabinet	01	GCABBA076AWSA	N
EXPLODED	P	02	AS	Rear Cabinet Ass'y	01	CBX300-RCAS	N
EXPLODED	P	03		Console Box A	01	GBOXSA170AWZZ	
EXPLODED	P	03	AS	Console Box A/B Ass'y	01	CBX300-CBAS	
EXPLODED	P	04		Console Box B	01	GBOXSA171AWZZ	
EXPLODED	P	05		FL Window	01	HDECQA411AWSA	N
EXPLODED	P	06		Bottom Panel	01	HDECQA312AWSB	
EXPLODED	P	07		Button, Function	01	JKNBZA207AWSB	N
EXPLODED	P	08		Top Cabinet	01	GCABCA078AWSB	N
EXPLODED	P	08	AS	Top Cabinet Ass'y	01	CBX300-TCAS	N
EXPLODED	P	09		Net Frame	01	GWAKPA042AWSA	N
EXPLODED	P	10		CD Decoration Panel	01	HDECQA396AWSA	

EXPLODED	P	11		PT Holder	02	LHLDZA148AWZZ	NSP
EXPLODED	P	12		FL Holder	01	LHLDZA146AWZZ	NSP
EXPLODED	P	13		Duct Wall Panel L	01	HDECQA397AWZZ	
EXPLODED	P	14		Duct Wall Panel R	01	HDECQA398AWZZ	
EXPLODED	P	15		Docking Holder	01	LHLDZA145AWSB	N
EXPLODED	P	16		Docking Cover	01	GCOVAA151AWSB	N
EXPLODED	P	17		Handle	01	JHNDPA006AWSA	N
EXPLODED	Z	01		Sheet, Fl Window A	01	PSHEZA108AWZZ	
EXPLODED	Z	02		Sheet, Fl Window B	01	PSHEZA110AWZZ	
EXPLODED	Z	03		Cushion,Leg	04	PCUSG0022AWZZ	
EXPLODED	Z	04		Sheet, CD Door	01	PSHEPA089AWZZ	
EXPLODED	Z	05		Terminal Cover	01	GCOVD1006AWSB	NSP
EXPLODED	Z	06		Sheet, Bottom Panel A	02	PSHEZA107AWZZ	
EXPLODED	Z	07		Sheet, Bottom Panel B	02	PSHEZA114AWZZ	
EXPLODED	Z	08		Speaker Unit	02	PD8180AA	
EXPLODED	Z	09		Felt, Console Box A	07	PFLT-A068AWZZ	NSP
EXPLODED	Z	10		Felt, Console Box C	01	PFLT-A070AWZZ	NSP
EXPLODED	Z	11		Felt, Duct Wall A	02	PFLT-A116AWZZ	
EXPLODED	Z	12		Front Reticulated	04	PKYU-A027AWZZ	N
EXPLODED	Z	13		Sheet, FL Panel	01	PSHEZA136AWZZ	
EXPLODED	Z	14		White Wool A	02	PKYU-A021AWZZ	NSP
EXPLODED	Z	15		White Wool B	02	PKYU-A023AWZZ	NSP
EXPLODED	Z	16		Cushion, Duct Port	02	PCUSZA017AWZZ	NSP
EXPLODED	Z	17		Cloth Tape (W8x50mm cut)	02	29110082	
EXPLODED	Z	18		Cloth Tape (W16x20mm cut)	02	29110083	
EXPLODED	Z	19		Cloth Tape (W16x90mm cut)	01	29110083	
EXPLODED	Z	20		Reticulated Foam A	02	PKYU-A022AWZZ	NSP
EXPLODED	Z	21		Reticulated Foam C	02	PKYU-A026AWZZ	NSP
EXPLODED	Z	22		Felt, Button	11	PFLT-A080AWZZ	NSP
EXPLODED	Z	23		Felt, Top Cabinet A	04	PFLT-A078AWZZ	
EXPLODED	Z	24		Felt, Top Cabinet B	05	PFLT-A079AWZZ	
EXPLODED	Z	25		Cushion, Button A	01	PCUSGA124AWZZ	N
EXPLODED	Z	26		Cushion, Button B	01	PCUSGA102AWZZ	NSP
EXPLODED	Z	27		Cushion, Button, C	02	PCUSGA125AWZZ	N

EXPLODED	Z	28		Cushion, Button D	02	PCUSGA104AWZZ	NSP
EXPLODED	Z	29		Washer	02	XWHBZ33-05060	N
EXPLODED		901		Screw,M2.6x6mm	03	XEBY726P06000	NSP
EXPLODED		902		Screw,M2.6x8mm	17	XEBY726P08000	NSP
EXPLODED		903		Screw,M2.6x10mm	17	XEBY726P10000	
EXPLODED		904		Screw,M3x10mm	28	XEBY730P10000	NSP
EXPLODED		905		Screw,M4x10mm	12	XEBY840P10000	NSP
EXPLODED		906		Screw,M3x12mm	04	XEBY730P12000	NSP
EXPLODED		907		Screw,M3x6mm	07	XJBY730P06000	NSP
EXPLODED		908		Screw,M3x8mm	05	XJBY730P08000	NSP
EXPLODED		909		Screw,M3x4mm	03	XHBY730P04000	NSP
EXPLODED		910		Screw,M4x12mm	02	XEBY740P12000	NSP
EXPLODED		911		Screw,M3x8mm	02	XJBY830P08000	NSP
EXPLODED		912		Screw,M3x8mm	17	LX-BZA031AWF8	NSP
EXPLODED		913		Screw,M3x10mm	04	LX-BZA032AWF8	NSP
EXPLODED		914		Screw,M3x30mm	03	LX-BZA033AWF8	NSP
EXPLODED		915		Screw,M3x12mm	05	LX-JZ0036AWF7	NSP

EXPLODED		916		Screw,M3x10mm	04	LX-BZA037AWF8	N
EXPLODED	**<Note>**						
EXPLODED	As shown in the EXPLODED VIEW, for certain parts, surrounding parts will be supplied together.						
EXPLODED	**MECHANISM PARTS**						
EXPLODED	E	1		CD mecha	01	-	NSP
EXPLODED	E	1	AS	CD mecha Ass'y	01	CBX300-CDMAS	
EXPLODED		0001		Loading Mechanism Ass'y	01	KMECZA003AWZZ	
EXPLODED		0002		CD Pickup Mechanism Ass'y	01	92LCDMECA6915A	
EXPLODED		0003		Screw	04	LX-EZA002AWF7	NSP
EXPLODED		0004		Screw, M2 x 6mm	01	XEBY720P06000	NSP
EXPLODED	**<Note>**						
EXPLODED	As shown in the EXPLODED VIEW, for certain parts, surrounding parts will be supplied together.						
EXPLODED	**PWB ASS'Y**						
EXPLODED	E	2		Main PWB	01	***	<MDC>
EXPLODED	E	2		Main PWB	01	***	<MPP>
EXPLODED	E	3		CD Servo PWB	01	92LPWB6915CDUS	
EXPLODED	E	4		Power PWB	01	***	<MDC>
EXPLODED	E	4		Power PWB	01	***	<MPP>
EXPLODED	E	5		Function PWB	01	***	<MDC>
EXPLODED	E	5		Function PWB	01	***	<MPP>
EXPLODED	E	6		FL PWB	01	***	<MDC>
EXPLODED	E	6		FL PWB	01	***	<MPP>
EXPLODED	E	11		i-pod PWB	01	-	NSP
EXPLODED	E	12		i-pod Power PWB	01	-	NSP

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